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DON'T TRASH THAT TRASH

Today people throw away more garbage than ever before. That's why it more important than ever to **Reduce - Reuse - Recycle**

What is the study of the relationship between living things and their environment?

The United States population generates 178 million tons of garbage each year. If piled thirty stories high, this would fill 1,350 football fields. Of the garbage we throw out, half could be recycled.

When you throw your garbage away, where does it go?

Dump

A dump is a random spot where people leave objects they do not want. It can be in the woods, near a park, in a stream, or anywhere.



Landfill

A landfill is a facility operated by a city or county government that is designed to help dispose of different types of waste. Landfills are constructed by engineers to make sure they work properly and keep our land, air, and water safe.

BLACK GOLD



Did you think that recycling was just for humans? Think again!

Nature has its own way of recycling. Items such as leaves and food can be recycled by decomposers. These decomposers digest the leaves and food and turn it into nutrient-rich "black gold."

What are these decomposers?

They are worms!

WHAT GOES AROUND, COMES AROUND

Have you ever thought about how old your water is? Think about the water you used this morning to brush your teeth. That water has been around since the dinosaurs! The water on Earth is very old. The water you use today was part of the very first ocean. The amount of water on Earth does not change. When water goes around and around on our Earth, we call it the water cycle.

Are these statements true or false?

- 1. Tap water might have fallen from the sky as rainwater.
- 2. Water from the tap has just been created on Earth.
- 3. The amount of water on Earth changes every day.



INNER SPACE CAVERN



- ____ resembles frozen waterfalls projecting from the ceiling, walls, and the floor of the caves.
- ____ grow up from the floor. They are usually formed by dripping water from stalactites above.
- ____ grow down from the ceiling. They form as calcite is deposited around the outside of the soda straws after the centers of the soda straws become plugged.
- 4. ____ are formed when a stalactite and a stalagmite grow together from the floor to the ceiling.
- 5. ____ are thin hollow tubes that grow from the ceiling of caves as water runs down inside them and deposits rings of calcite at their tips.

LAYERS OF THE EARTH

- 1. What is the study of the Earth?
- 2. The outer layer of the Earth is the _____. It is the rocky "skin" that covers the whole earth. Parts of it can be seen as land. Other parts cannot be seen because they lie under the ocean.
- The next layer is the ____. It is the thickest layer of Earth. It is so hot in this layer that the rock here is molten.
- 4. At the center of the Earth is the _____. It has two parts. The outer part is thought to be a shell of melted metal. The inner part is thought to be a solid ball of metal. Even though it is very hot in the inner part, the pressure there is so great that it cannot melt.



WACO MAMMOTH NATIONAL MONUMENT



- 1. What kind of terrain covered Texas during the Ice Age?
- 2. What was the average temperature in Texas during the Ice Age?
- 3. What kind of mammoths were found in Waco?
- 4. In what type of rock were the fossils found?
- 5. What other kinds of bones did they find at the Waco Mammoth National Monument?
- 6. Were there dinosaurs in the Ice Age?
- 7. In what era did the Ice Age occur?
- 8. Which mammoths is larger, a Columbian Mammoth or Woolly Mammoth?
- 9. Mammoths are a matriarchy. What does that mean?

CAMERON PARK ZOO

The Brazos River is over 900 miles long and connects Lubbock to the Gulf of Mexico; it is both plains and a coastal river. The Brazos River Watershed encompasses more than 40,000 square miles – more area than any other Texas river.

The Brazos River ecological system is important because on its journey to the Gulf of Mexico, the river is a tremendous source of water for power, irrigation, and recreation. In addition, several major reservoirs tap drinking water from the Brazos and its tributaries. The Brazos River passes through five ecological regions of Texas on its trip from Lubbock to the Gulf. They are the **Gulf Coast, East Texas Piney Woods, Blackland Prairies/Post Oak Savannah, Prairie and Cross Timbers,** and **Edwards Plateau**.



GULF COAST



Identify the living and non-living organisms in the aquarium. Decide if each of these are living or non-living.

- 1. Fish
- 2. Coral
- 3. Water
- 4. Rocks

Discussion questions:

- 1. How do living things interact with each other in their environment?
- 2. What do living things need in order to survive?
- 3. If you had an aquarium, how would you provide for the needs of the organisms living in the aquarium?

EAST TEXAS PINEY WOODS

- 1. In what type of habitat does the black bear live?
- 2. What does the black bear use for shelter?
- 3. Is the black bear a carnivore, herbivore, or omnivore?
- 4. What does the black bear eat?
- 5. Do black bear in Texas hibernate? Why or why not?

BLACKLAND PRAIRIE/POST OAK SAVANNAH

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FRESHWATER AQUARIUMS

Many of the organisms in the freshwater aquariums use their physical characteristics to help them survive.

Name one organism from these aquariums and tell the class how their physical characteristic helps them survive. Does it help them obtain food, escape predators, reproduce, or communicate?

BUTTERFLY GARDEN

The Texas State Insect is the Monarch Butterfly. Monarchs return to Texas each spring to lay their eggs on freshly sprouted milkweed.

- 1. How are native plants, like milkweed, destroyed?
 - 2. How might this affect our state insect?

ECOSYSTEMS

Can you find two words in the bigger word, "Ecosystems"? "Eco" means life forms and the environment in which they live. A "system" is a group of things that work together. An ecosystem is a group of things that work and live together and includes all the biotic (living or once were alive) things and abiotic (non-living) things in an environment.

Some examples of an ecosystem are a rainforest, a pond, a city, and even our Earth! Ecosystems can be small as a puddle or a handful of soil. Plants and animals live in ecosystems along with things that are too small to see. Everywhere you look, you can find an ecosystem.

The process of change in an ecosystem over a long period of time is called succession. The populations in an ecosystem change during succession. An ecosystem might change because of humans. When we develop land for houses, we cut down trees. We change the environment for all plants and animals. Some animals can adapt to the change; others cannot. Their population is affected.

Think of an animal or plant that could become extinct due to the secession of its ecosystem. After naming your animal or plant, explain your answer.

PRAIRIES AND CROSS TIMBERS

- 1. Name some of the animals you saw in this part of the zoo.
- 2. What characteristics did these animals have in common?
- 3. What type of prey do these animals eat?
- 4. Predict what might happen if their food source left this area.

EDWARDS PLATEAU

- 1. What animals did you see in the Brazos at Night Building?
- 2. What did all these animals have in common?
- 3. What does nocturnal mean?
- 4. What characteristics make a bison different from a buffalo?
- 5. Name the different items that can be made from the following parts:

Horns -> Hide -> Teeth -> Hair -> Hooves -> Stomach -> Fat -> Meat ->



